

DOCUMENT RESUME

ED 388 657

SP 036 305

AUTHOR Swartzel, Kirk A.
TITLE Use of "AgVenture Magazine" by Teachers in Ohio.
Final Report.
PUB DATE 15 May 95
NOTE 37p.
PUB TYPE Reports - Research/Technical (143) --
Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Agricultural Education; Educational Practices;
*Elementary School Teachers; *Grade 4; *Instructional
Materials; Intermediate Grades; *Periodicals;
Surveys; Teacher Attitudes
IDENTIFIERS *AgVenture Magazine; *Ohio

ABSTRACT

This study identified Ohio fourth-grade teachers who had used "AgVenture Magazine" and examined how they had used it in their classrooms. AgVenture Magazine is an educational publication aimed at making students aware of the importance of Ohio agriculture. A random sample of 729 fourth-grade teachers was selected to participate in the study through a mailed questionnaire. After a series of mailings and follow-up mailings, 423 usable responses were returned (58 percent response rate). Results indicated that teachers using the magazine found it informative and easy to use. They used it in a variety of different classes to help students understand and apply agricultural principles to everyday life. Teachers also incorporated outside resources and projects when using the magazine to help students understand and apply agricultural concepts. Overall, teachers had a positive perception of the magazine's content, layout, and educational value. Concerns included the need to increase the number of teachers who use the magazine, increase mailing accuracy, and increase teacher awareness of local agricultural awareness programs. An appendix contains the questionnaire. (JB)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

SCOPE OF INTEREST NOTICE

The ERIC Facility has assigned this document for processing to:

In our judgement, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

USE OF AGVENTURE MAGAZINE BY TEACHERS IN OHIO

Final Report

May 15, 1995

Developed by:

Kirk A. Swortzel
Graduate Administrative Associate
Department of Agricultural Education
The Ohio State University
208 Agricultural Administration Building
2120 Fyffe Road
Columbus, OH 43210
Tel. 614-292-6321 FAX 614-292-7007
Internet: kswortze@magnus.acs.ohio-state.edu

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- 1 This document has been reproduced as received from the person or organization originating it.
- 2 Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

K. Swortzel

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

51036305

CONTENTS

Contents	i
Lists of Tables	ii
Introduction	1
Purpose and Research Questions	4
Methods and Procedures	4
Design of Study	4
Population and Sample	5
Instrumentation	5
Data Collection Procedures	6
Data Analysis Procedures	7
Results and Findings	7
What were the demographic characteristics of Ohio fourth-grade teachers who are using <u>AgVenture Magazine</u> ?	7
How did fourth-grade teachers use <u>AgVenture Magazine</u> in their classes with their students?	10
Why did some fourth-grade teachers not use <u>AgVenture Magazine</u> with their students?	12
What outside resources did fourth-grade teachers use when teaching their students about agriculture?	12
What were fourth-grade teacher perceptions regarding <u>AgVenture Magazine</u> and its effectiveness in promoting Ohio agriculture?	14
Conclusions and Recommendations	19
Recommendations for Further Study	21
List of References	22
Appendix A	23
Questionnaire	24

Appendix B	30
Cover Letter 1	31
Cover Letter 2	32
Cover Letter 3	33

LIST OF TABLES

Table	Page
1 Type of School System Teachers Worked In	9
2 Frequency of Grade Levels Which Teachers Taught At	9
3 Frequency of Classes in Which Teachers Used <u>AgVenture Magazine</u>	11
4 Outside Resources Utilized by Teachers Using <u>AgVenture Magazine</u>	13
5 Extension Programs and Projects Used by Teachers with <u>AgVenture Magazine</u>	14
6 Teachers Perceptions to Various Aspects of <u>AgVenture Magazine</u>	15
7 Teachers Comments on What They Specifically Liked About <u>AgVenture Magazine</u>	17
8 Responses on How <u>AgVenture Magazine</u> Can Be Improved	17
9 Responses on How Effective Teacher's Guide to <u>AgVenture Magazine</u> Is ..	18
10 Responses on How the Teacher's Guide to <u>AgVenture Magazine</u> Can Be Improved	18

INTRODUCTION

Agricultural literacy is defined as understanding and possessing knowledge of our food and fiber system (Frick, 1991). Individuals possessing such knowledge would be able to synthesize, analyze, and communicate basic information about agriculture (Frick, 1991). However, agricultural literacy has become a major concern in our nation. Many Americans know little about agriculture and its role in society. Leaders in the agriculture industry, realizing that more Americans know less about the nature and scope of agriculture, proposed agricultural literacy to become a major function of the agricultural education profession (Strategies to Promote Agricultural Literacy, 1992).

Goal Number 1 from the National Summit on Agricultural Education (1989) was "To update instruction in and expand programs about agriculture." To expand programs about agriculture meant making people more aware about agriculture and the related industry. Agricultural literacy efforts were to help produce informed citizens who would be able to more fully participate in the establishment of policies which support a high competency of agricultural understanding in their country and abroad (Strategies to Promote Agricultural Literacy, 1992).

The Committee on Agricultural Education in Secondary Schools (1988) published the report Understanding Agriculture: New Directions for Education, devoting one entire section to agricultural literacy. The Committee reported on many disturbing trends regarding agricultural literacy and made recommendations on how agricultural literacy could be promoted in our nation's schools.

Various researchers have concluded that elementary school children know very little about agriculture, its social and economic significance, and particularly, its links to human health and environmental quality (Committee on Agricultural Education in

Secondary Schools, 1988). Horn & Vining (1986) found that fewer than 30 percent of students surveyed in Kansas gave correct answers to relatively basic questions on agriculture. In Virginia, fourth grade students only had rudimentary concepts of where their food and fiber originated (Oliver, 1986). In fact, these students were not even curious to find out where their food and fiber came from. Research in Oklahoma concluded that students knew least about the concept that agriculture is historically significant to the development of our nation (Williams & White, 1991). Furthermore, low test scores revealed a low level of basic knowledge about agriculture among youth (Williams & White, 1991).

To make school-aged children across our nation more literate about agriculture, the Committee on Agricultural Education in Secondary Schools (1988) recommended that all students should receive at least some kind of systematic instruction about agriculture beginning in kindergarten or first grade and continuing through twelfth grade. Few systematic efforts have been made to teach or develop agricultural literacy in students of any age (Committee on Agricultural Education in Secondary Schools, 1988). For students to receive such instruction, education leaders across the nation would have to develop and implement plans to foster school instruction about scientific, economic, and public health aspects of agriculture. Teachers would have to modify lesson plans to incorporate such information about agriculture. Support materials would have to be developed to accomplish the goal of agricultural literacy. Whatever teachers wanted to do to promote agriculture could be done in existing courses; agriculture would not have to be taught separately.

The state of Ohio answered the call to make school-aged children in Ohio more

agriculturally literate. Through the support of the Ohio Agricultural Council, Ohio State University Extension, Ohio State University College of Food, Agricultural, and Environmental Sciences, and Ohio's agricultural community, AgVenture Magazine was developed to make students aware about the importance of Ohio agriculture. AgVenture Magazine has been distributed to every public and private fourth-grade elementary school teacher in Ohio for the past two years. Three issues have been published each year, one each during the fall, winter, and spring. Each issue discussed a particular topic or dealt with a specific theme. Preparations were made to begin another year of distributing AgVenture Magazine to schools in 1994-95.

The Editorial Review Board to AgVenture Magazine, consisting of fourteen members, meets to discuss the content of each issue and make recommendations to its content and format before an issue is published. Each major commodity group in Ohio has one representative on the Board. Four fourth-grade teachers also set on the Editorial Review Board to make sure the language and reading level of AgVenture Magazine is appropriate for fourth-grade students. Other members of the Board consist of the Executive Director of the Ohio Agricultural Council, two members of the Ohio Agricultural Council, and the author of this paper.

Individuals, businesses, and organizations who have donated their time and financial resources to support the production and distribution of AgVenture Magazine want to know if their efforts are worthwhile. They want to know if AgVenture Magazine is being used by fourth-grade teachers in Ohio and how the magazine is being used by fourth-grade teachers to promote Ohio agriculture. How well the content and activities of AgVenture Magazine makes elementary school students more literate about Ohio

agriculture will determine whether support is provided in the future for such a project.

Teachers who teach their students about agriculture want a publication that provides current and relevant information about Ohio agriculture. This publication needs to be on an appropriate reading level for students and contain a variety of hands-on activities to help reinforce what students learn about agriculture. Ideas and suggestions from teachers on how AgVenture Magazine can be improved are important to the writers of AgVenture Magazine as they plan and write future issues.

PURPOSE AND RESEARCH QUESTIONS

The purpose of the study was to identify those Ohio fourth-grade teachers who had used AgVenture Magazine and describe how they had used AgVenture Magazine in their classrooms. The following research questions guided the study:

- 1) What were the demographic characteristics of Ohio fourth-grade teachers who were using AgVenture Magazine?
- 2) How did fourth-grade teachers use AgVenture Magazine in their classes with their students?
- 3) Why did some fourth-grade teachers elect not use AgVenture Magazine with their students?
- 4) What outside resources did fourth-grade teachers use when teaching their students about agriculture?
- 5) What were fourth-grade teacher perceptions regarding AgVenture Magazine and its effectiveness in promoting Ohio agriculture?

METHODS AND PROCEDURES

Design of the Study

Descriptive-survey research methods were used to collect data for the study.

Data collected in the study sought to identify characteristics of fourth-grade teachers in Ohio who did or did not use AgVenture Magazine, identify how AgVenture Magazine was used in classrooms, and determine ways AgVenture Magazine could be improved to make it more educational.

Population and Sample

The population for the study included all public school and private school fourth-grade teachers in Ohio. According to the State Department of Education, there were 5,328 public school fourth-grade teachers and 718 private school fourth grade teachers in Ohio at the beginning of the 1994-95 school year. This made a total population for the study of 6,046 fourth-grade teachers. A randomly-selected sample of 729 fourth-grade teachers were selected to participate in the study.

Instrumentation

The instrument used to collect data for the study was in the form of a mailed questionnaire. The questionnaire was developed by the researcher after reviewing past issues of AgVenture Magazine for content. Meetings were also held with members of the Editorial Review Board for AgVenture Magazine and members of the Ohio Agricultural Council to get their ideas on types of questions to be asked. A copy of the questionnaire used for the study is located in Appendix A.

The questionnaire contained two parts. Part one asked for demographic data of Ohio fourth-grade teachers, including how they used AgVenture Magazine with their students. The second part of the questionnaire contained 13 Likert-type statements dealing with fourth-grade teacher perceptions regarding content, activities and educational value of AgVenture Magazine.

Questions asking for demographic data consisted of both open-ended and closed-ended response categories, depending on the type of data needed for the study. Questions in Part two that asked for fourth-grade teacher perceptions regarding the content, activities and educational value of AgVenture Magazine were Likert-type statements. The scale of measurement for the statements were: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree.

The questionnaire was given to a panel of experts who were specialists in 4-H youth development and familiar with AgVenture Magazine determined that the questionnaire has content validity. Minor changes in wording were recommended to the questionnaire.

Data Collection Procedures

Fourth-grade teachers selected to be in the sample were mailed a copy of a numbered questionnaire and a self-addressed stamped envelope for returning the questionnaire to the researcher. A cover letter from the researcher explaining the purpose of the study accompanied the questionnaire. The cover letter explained that participation in the survey was totally voluntary. The cover letter also assured that respondents' names would not be linked with their responses. A copy of the cover letter and follow-up letters used in data collection is located in Appendix B.

The first mailing was sent out on September 15, 1994. After three weeks, non-respondents were mailed another cover letter and questionnaire. After another two weeks, another cover letter and questionnaire were mailed to those who had still not responded. After another two weeks, 457 of 729 questionnaires had been returned for a response rate of 62.7 percent. Of the 457 questionnaires returned, 34 were not usable,

making the overall usable response rate 58 percent.

An analysis was done to determine if significant differences existed between early and late responders. There were no significant differences between early and late responders. Since late responders are similar to non-responders (Miller and Smith, 1983), no additional follow-up was considered necessary. It was assumed that findings from the sample were generalizable to the population from which it was gathered.

Following the return of the questionnaires, internal consistency on Part two of the questionnaire was determined using Cronbach's Alpha. A reliability coefficient of .92 was calculated posthoc on the 13 item Likert-type scale regarding content and activities of AgVenture Magazine.

Data Analysis Procedure

Data were analyzed using the Statistical Package for the Social Sciences (SPSS Release 4.1) in the IBM 3090 mainframe computer at The Ohio State University. Alpha levels were set a priori at .05 to determine significant differences.

To analyze nominally-scaled variables, descriptive statistics, including frequencies and percentages, were used. To analyze intervally-scaled variables, descriptive statistics, including means and standard deviations, were used.

RESULTS AND FINDINGS

Research Question One: **What were the demographic characteristics of Ohio fourth-grade teachers who were using AgVenture Magazine?**

Three-hundred seventy-seven teachers (89.3 percent) that responded were female while only 45 (10.7 percent) were male. The number of years of teaching experience for

teachers ranged from zero years to 44 years, with an average of 17.4 years (s.d. = 8.7).

Table 1 reports the frequency of teachers responding by the type of school system they taught in. Most teachers taught in either city school systems ($f = 184$ or 43.5 percent of respondents) or local school districts ($f = 176$ or 41.6 percent of respondents). Fewer teachers taught either in private or parochial schools ($f = 49$ or 11.6 percent of respondents) or exempted-village school districts ($f = 14$ or 3.3 percent of respondents).

Table 2 reports the grade levels in which teachers taught. Of those responding, 409 (96.7 percent) taught fourth-grade. Twenty-five (5.9 percent) taught fifth-grade, 19 (4.5 percent) taught third-grade, and 15 (3.5 percent) taught sixth-grade. Less than 2 percent of teachers taught kindergarten, first-grade, second-grade, seventh-grade, or eighth-grade. Because responses to this question were other than fourth grade, it is clear that the sampling frame did not contain just fourth-grade teachers. Teachers in other grade levels received the questionnaire and, furthermore, have received copies of AqVenture Magazine in the past. Due to this fact, results are only generalizable to those who responded to the questionnaire.

The number of students teachers had in class or taught last year ranged from nine to 85. On average, teachers had approximately 27 students in their class last year (s.d. = 9.8).

Teachers were asked questions to determine if they had any current or previous experience in agriculture. Only 73 of the teachers (17.3 percent) responding were born and reared on a farm. Thirty-two (7.7 percent) currently live on a farm.

In terms of having an agricultural education program and FFA chapter within the

Table 1. Type of School System Teachers Worked In

Type of School System	f	%
City School System	184	43.5
Local School District	176	41.6
Private or Parochial School System	49	11.6
Exempted Village School District	14	3.3
Total	423	100.0

Table 2. Frequency of Grade Levels Which Teachers Taught at (n = 423)*

Grade Level	f	%
Kindergarten	5	1.2
First Grade	4	.9
Second Grade	4	.9
Third Grade	19	4.5
Fourth Grade	409	96.7
Fifth Grade	25	5.9
Sixth Grade	15	3.5
Seventh Grade	5	1.2
Eighth Grade	4	.9

Note: Some teachers taught more than one grade level.

school district, 128 (30.3 percent) teachers reported having such a program available to them while 83 (19.6) reported that there was not such a program within the district. Only nine teachers (2.1 percent) had every taken their classes to a Food for America program sponsored by a local FFA chapter.

The Ohio Farm Bureau sponsors Ag-in-the-Classroom workshops each summer for teachers to learn more about agriculture and learn how to integrate agricultural concepts into the core curriculum. Only 13 (3.1 percent) of teachers responding had ever attended an Ag-in-the-Classroom workshop.

Research Question Two: How did fourth-grade teachers use AgVenture Magazine in their classes with their students?

The number of hours teachers used AgVenture Magazine with their students last year ranged from zero to 600 hours. On average, teachers spent approximately 8.6 hours using AgVenture Magazine with their classes.

Teachers used AgVenture Magazine in several different classes. Table 3 reports the frequency of what specific classes teachers used AgVenture Magazine. The class in which teachers used AgVenture Magazine the most was Social Studies (220 responses or 52 percent of total responses). Next, teachers used AgVenture Magazine to discuss environmental issues with their students (165 responses or 39 percent of total responses). Teachers used AgVenture Magazine the least in math class (77 responses or 18.2 percent of total responses). Teachers also indicated they used AgVenture Magazine in a variety of other classes. These included health and individual study/reading resource labs.

Table 3. Frequency of Classes in Which Teachers Used AgVenture Magazine (n = 423)

Class	f	%
Language Arts	114	27.0
Math	77	18.2
Social Studies	220	52.0
Science	122	28.8
Introduce Careers	100	23.6
Environmental Issues	165	39.0
Other	31	7.3

Research Question Three: Why did some fourth-grade teachers not use AgVenture Magazine with their students?

Two hundred seventy-two (65.7 percent) teachers used AgVenture Magazine last year while 142 (34.3 percent) did not. Teachers who did not use Agventure Magazine with their students provided many different reasons for not using AgVenture Magazine with their students. Some teachers did not know that AgVenture Magazine existed (f = 27 or 6.4 percent of respondents). Many teachers did not have sufficient time during the school day to use AgVenture Magazine (f = 88 or 20.8 percent of respondents). Others claimed they were just not interested in using AgVenture Magazine with their classes (16 or 3.8 percent).

For those teachers who did not use AgVenture Magazine with their classes last year (f = 122), they were asked would they use AgVenture Magazine if it was made available to them. Sixty-seven said they would use AgVenture Magazine while 57 said they would not.

Research Question Four: What outside resources did fourth-grade teachers use when teaching their students about agriculture?

Teachers reported using a variety of resources when teaching their students about agriculture. Table 4 reports the frequency of outside resources used by teachers. The outside resource used the most by teachers were materials from Ag-in-the-Classroom (f = 58 or 20.8 percent of respondents). Next, teachers used soil and water conservation districts the most (f = 52 or 18.6 percent of respondents). The outside resource used the least was agribusinesses (f = 3 or 1.1 percent). Teachers indicated other resources used to help in teaching their students about agriculture. These included the students themselves, students' parents, and museums.

Table 4. Outside Resources Utilized by Teachers using AgVenture Magazine (n = 423).

Outside Resource	f	%
Extension agents (4-H)	46	16.5
Agricultural education programs	20	7.2
FFA Chapters	19	6.8
Farm Bureau	8	2.9
Ag-in-the-Classroom	58	20.8
Agribusinesses	3	1.1
Local Cooperatives	11	3.9
Soil and Water Conservation Districts	52	18.6
Other Resources	11	3.9

Teachers were also asked to indicate what extension programs or projects they have used with their classes in teaching students about agriculture. Table 5 reports the frequency of such programs used by teachers. Exploring Plants was the extension project used the most by teachers ($f = 48$ or 17.2 percent of respondents). The Incredible Egg was the next most used project by teachers ($f = 46$ or 16.5 percent of respondents). The extension program or project that was used the least was Fishy Science ($f = 11$ or 3.9 percent of respondents), which is a relatively new program.

Table 5. Extension Programs and Projects Used by Teachers with AgVenture Magazine (n = 423)

Program/Project	f	%
Acorn to Oaks	28	10.0
Blue Sky Below My Feet	20	5.7
Exploring Animals	30	10.8
Exploring Plants	48	17.2
Fishy Science	11	3.9
The Incredible Egg	46	16.5
Other Extension Programs	5	1.8

Research Question Five: What were fourth-grade teacher perceptions regarding AgVenture Magazine and its effectiveness in promoting Ohio agriculture?

Teachers were asked to indicate their level of agreement to 13 Likert-type statements on various aspects of AgVenture Magazine. Table 6 reports the means of teachers for these 13 statements. The highest rated statement was "AgVenture provides valuable information for my students" (mean = 3.49, s.d. = .50). The lowest rated statement was "The Pretest and Posttest provided in the Teacher's guide are valuable in helping determine students' knowledge about agriculture" (mean = 3.07, s.d. = .59).

Table 6. Teachers Perceptions to Various Aspects of AgVenture Magazine

Statement	n	Mean	s. d.
<u>AgVenture</u> provides valuable agricultural information for my students.	274	3.49	.50
The content of <u>AgVenture</u> is relevant to current curriculum needs.	277	3.27	.58
Integrating <u>AgVenture</u> into subject areas is easy.	275	3.19	.60
My students find <u>AgVenture</u> to be fun and exciting.	269	3.26	.56
My students find <u>AgVenture</u> to be informative.	274	3.32	.49
<u>AgVenture</u> contains appropriate learning activities for students to apply what they have learned about agriculture.	276	3.26	.51
Terms used in <u>AgVenture</u> are at an appropriate reading level for fourth-grade students.	273	3.17	.57
<u>AgVenture</u> is organized in a logical manner.	277	3.29	.49
The Teacher's Guide to <u>AgVenture</u> is easy to use.	269	3.31	.51
The Teacher's Guide to <u>AgVenture</u> is organized in a logical manner.	268	3.30	.49
The Teacher's Guide provides helpful suggestions for integrating agriculture into the core curriculum.	261	3.28	.51
The Pretest and Posttest provided in the Teacher's Guide are valuable in helping determine students' knowledge about agriculture.	232	3.07	.59
The Discussion Prompters in the Teacher's Guide help me get my students talking about agriculture.	253	3.18	.50

Scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree

Teachers were asked to respond to a series of open-ended questions dealing with what they liked specifically about AgVenture Magazine and the corresponding Teacher's Guide and how each could be specifically improved. Responses to the question "What specific things do you like about AgVenture?" are located in Table 7. Table 8 records the responses on how AgVenture Magazine could be improved to make it more effective. Table 9 includes responses from teachers on how the corresponding Teacher's Guide was helpful in assisting teachers to discuss AgVenture topics with their students. Responses from teachers on how the corresponding Teacher's Guide could be improved are located in Table 10.

Table 7. Teachers comments what they specifically liked about AgVenture Magazine

Interesting format Variety of useful information Developed around a central theme Deals specifically with Ohio Students liked topics Appropriate for the grade level used Makes real use of science Provided clear and directed student activities Easy to integrate into current subjects Easy for students to understand Can be used across the curriculum Provides interesting facts and figures Introduces new vocabulary Allowed students from the farm to share their knowledge	Makes students aware of careers in agriculture Relates to the study of Ohio history Short and interesting articles Incorporates a multidisciplinary approach Correlates with the social studies curriculum Reinforces what students know about agriculture Provides current and relevant information Relates students as consumers of agricultural products Teacher friendly Easy to understand charts and graphs
---	---

Table 8. Responses on how AgVenture Magazine can be improved.

Receive enough copies for all students Provide more hands-on activities for students to do Provide more true agricultural content and less filler Relate more to Ohio history Develop more stories on animals Develop clearer graphics Include more science experiments for students to do Include address for students to write to get more information Make the entire magazine shorter Develop videos to accompany magazine	Print magazine on a monthly basis Use more colors in the magazine Include more articles that are student centered or deal with student experiences Make print type larger Reduce level of difficulty of math problems included Correlate with new state science curriculum Provide activity sheets that can be copied Relate more to state proficiency testing Include a section to involve parents
--	--

Table 9. Responses on how effective Teacher's Guide to AgVenture Magazine is

Provided helpful background information
Provided answers to student exercises
Helped save time in preparing lessons
Very easy to use
Provided helpful curriculum integration suggestions
Glossary section helped define word
Make me feel comfortable with topics

Table 10. Responses on how the Teacher's Guide to AgVenture Magazine can be improved

Include more hands-on science activities
Include list of references and additional resources
Include maps to show where major commodities are raised in Ohio
Use a larger print

CONCLUSIONS AND RECOMMENDATIONS

Teachers using AgVenture Magazine find the magazine informative and easy to use. They use AgVenture Magazine in a variety of different classes to help students understand and apply agricultural principles to everyday life. Teachers are also incorporating some outside resources and projects when using AgVenture Magazine to help students understand and apply agricultural concepts.

Overall, teachers using AgVenture Magazine have a positive perception regarding the content, layout, and educational value of the magazine. As evidenced by written comments provided by teachers, AgVenture Magazine helps promote Ohio agriculture. It helps bring agriculture to a student's perspective and in a positive manner.

While many of the results and comments from teachers are positive, there are some concerns that must be addressed if AgVenture Magazine is to continue to have a positive impact in improving agricultural literacy among school-aged children. The main concern is getting teachers to use AgVenture Magazine. Many teachers either do not have the time to use it or simply do not want to find time to incorporate AgVenture Magazine into their curriculum. Donors, sponsors, and writers of AgVenture Magazine spend valuable time and offer financial support to produce a quality educational resource for teachers and students to use. Further follow-up should be conducted to help teachers understand the benefits of using AgVenture Magazine and suggest strategies for incorporating agriculture into the curriculum.

Another concern deals with who AgVenture Magazine is being mailed to. While AgVenture Magazine is geared for fourth-grade students, past issues of AgVenture Magazine have been sent to teachers from kindergarten to eighth-grade. A conscious

effort needs to be made by those who work in distributing AgVenture Magazine to see that an accurate and up-to-date list of fourth-grade teachers is available to use when mailing AgVenture Magazine during the school year.

A third concern is the fact that many teachers are unaware that agricultural education programs and FFA chapters exist within close proximity of their schools. There are many agricultural education programs and FFA chapters that are within reasonable distance that can assist in helping teachers provide relevant and up-to-date information about agriculture. Agricultural education programs and FFA chapters should correspond with local elementary school teachers to offer their assistance throughout the school year in promoting Ohio agriculture.

To help ensure that AgVenture Magazine continues to be beneficial in promoting Ohio agriculture and helping improve agricultural literacy in our state, the following recommendations are offered to the Editorial Review Board for their consideration:

- 1) Include in the Teacher's Guide science experiments or other similar activities that can be completed by students to help apply agricultural principles and concepts.
- 2) Include in the Teacher's Guide a list of outside resources (names, addresses, and phone numbers) teachers may contact to get additional information about agriculture or use as guest speakers in their classes to discuss agriculture.
- 3) Include in the student magazine places where students can write to get more information about agriculture.
- 4) Work with elementary education specialists to assure that the content, activities, and reading level are appropriate for the grade level AgVenture Magazine intends to educate and inform.
- 5) Include a section in the student magazine that encourages parents to help their child understand the importance of Ohio agriculture.

- 6) Continue to use current teachers in Ohio on the Editorial Review Board to provide assistance in planning future issues of AgVenture Magazine.
- 7) Continue to provide suggestions to teachers on how to integrate AgVenture Magazine into the core state curriculum.

Recommendation for Further Research

- 1) This study should be replicated on a periodic basis to gather demographic information on teachers using AgVenture Magazine
- 2) This study should be replicated on a periodic basis to gather information on how improve AgVenture Magazine
- 3) A study should be conducted on students' perceptions on AgVenture Magazine.
- 4) A study should be conducted to determine if AgVenture Magazine helps increase students knowledge about agriculture in Ohio.

REFERENCES

- Committee on Agricultural Education in Secondary Schools (1988). Understanding Agriculture: New Directions for Education. Washington, DC: National Academy Press.
- Deeds, J. P. (1991). "Agricultural Literacy - The Undefinable Goal of Agricultural Education." The Agricultural Education Magazine. 63(8), 4, 11.
- Frick, M. J. (1991). A Definition and the Concepts of Agricultural Literacy: A National Study (Doctoral Dissertation, Iowa State University, 1990). Dissertation Abstracts International, 51, 2244A.
- Horn, J. and Vining, B. (1986). An Assessment of Students' Knowledge of Agriculture. Manhattan, KS: Center of Extended Services and Studies, College of Education, Kansas State University.
- National Summit on Agricultural Education (1989). The Strategic Plan for Agricultural Education. Washington, D.C.
- Oliver, J. D. (1986). Vocational Agriculture Education's Response to the Educational Reform Movement. Paper presented at the Southern Regional Agricultural Education Conference, Little Rock, AK, March 24, 1986.
- Strategies to Promote Agricultural Literacy (1992). American Association of Agricultural Education Ad Hoc Agricultural Literacy Work Group at the AVA Convention, December 1992.
- Williams, G. and White, J. D. (1991). "Agricultural Literacy in Agriculture's Heartland." The Agricultural Education Magazine. 63(8), 9-10.
- Zurbrick, P. R. (1990). "Agricultural Literacy - Why!" The Agricultural Education Magazine. 62(8), 3.

APPENDIX A
QUESTIONNAIRE

AgVenture Magazine Evaluation**PART I - Demographic Information**

Demographic information about you, your students, your school, and the community in which you work are useful in understanding and interpreting your responses. Please respond to each question by checking the appropriate answer(s) or filling in the appropriate answers where indicated.

1. How many years have you been a teacher? _____
2. What is your gender?
☐ a. FEMALE
☐ b. MALE
3. In what type of school setting do you teach?
☐ a. CITY SCHOOL DISTRICT
☐ b. LOCAL SCHOOL DISTRICT
☐ c. EXEMPTED VILLAGE SCHOOL DISTRICT
☐ d. PRIVATE/PAROCHIAL SCHOOL DISTRICT
4. What grade level(s) do you teach? (Circle all that apply)
K 1 2 3 4 5 6 7 8
5. How many students did you have in your class last year? _____
6. Were you born and reared on a farm?
☐ a. YES
☐ b. NO
7. Do you currently live on a farm?
☐ a. YES
☐ b. NO
- 8A. Did you use the AgVenture with your class last year?
☐ a. YES - IF YES, GO TO QUESTION # 9
☐ b. NO - IF NO, GO TO QUESTION # 8B.

8B. What were your reasons for not using AgVenture? (Check all that apply)

- ☐ I DID NOT KNOW ABOUT AG VENTURE.
☐ I DID NOT HAVE TIME TO USE AG VENTURE WITH MY CLASS.
☐ I WAS NOT INTERESTED IN USING AG VENTURE WITH MY CLASS.
☐ OTHERS (PLEASE LIST) _____

8C. Would you use AgVenture with your class if it was made available to you?

- ☐ a. YES **Thank You. This completes the questionnaire. Please return the questionnaire in the enclosed postage-paid envelope.**
☐ b. NO

9. Approximately how many class hours did you use AgVenture with your students last year? _____

10. In what ways did you use and integrate AgVenture into the core curriculum? (Check all that apply)

- ☐ I USED AG VENTURE IN LANGUAGE ARTS/READING CLASS TO INTRODUCE NEW WORDS TO MY STUDENTS.
☐ I USED AG VENTURE IN MATH CLASS, USING AGRICULTURAL FACTS AND FIGURES IN PROBLEMS TO BE SOLVED BY MY STUDENTS.
☐ I USED AG VENTURE IN SOCIAL STUDIES/GEOGRAPHY CLASS TO TEACH STUDENTS ABOUT THE GEOGRAPHY OF OHIO AND WHERE MAJOR AGRICULTURAL COMMODITIES ARE GROWN.
☐ I USED AG VENTURE IN SCIENCE CLASS TO RELATE BASIC SCIENTIFIC PRINCIPLES TO AGRICULTURE AND EMPHASIZE THAT AGRICULTURE IS A SCIENCE.
☐ I USED AG VENTURE TO INTRODUCE MY STUDENTS TO CAREERS IN AGRICULTURE.
☐ I USED AG VENTURE TO DISCUSS ENVIRONMENTAL ISSUES WITH MY STUDENTS.
☐ OTHERS (PLEASE LIST) _____

11. Which of the following resources did you use last year with your class during the study of AgVenture topics? **(Check all that apply)**
- ☐ a. EXTENSION AGENTS (4-H)
 - ☐ b. AGRICULTURAL EDUCATION PROGRAMS
 - ☐ c. FFA CHAPTERS
 - ☐ d. FARM BUREAU
 - ☐ e. AG-IN-THE-CLASSROOM
 - ☐ f. AGRIBUSINESSES
 - ☐ g. LOCAL COOPERATIVES
 - ☐ h. SOIL AND WATER CONSERVATION DISTRICTS
 - ☐ i. OTHERS (PLEASE LIST) _____
12. Is there an agricultural education program and FFA chapter at a high school or joint vocational school in your school district?
- ☐ a. YES
 - ☐ b. NO
13. Have your classes ever attended a Food For America Program sponsored by a local FFA chapter?
- ☐ a. YES
 - ☐ b. NO
14. Which of the following extension programs/projects relating to agriculture have you used with your class? **(Check all that apply)**
- ☐ a. ACORNS TO OAKS
 - ☐ b. BLUE SKY BELOW MY FEET
 - ☐ c. EXPLORING ANIMALS
 - ☐ d. EXPLORING PLANTS
 - ☐ e. FISHY SCIENCE
 - ☐ f. THE INCREDIBLE EGG
 - ☐ g. OTHERS (PLEASE LIST) _____
15. Have you ever attended any workshops dealing with Ag-in-the-Classroom?
- ☐ a. YES
 - ☐ b. NO

16. What specific things do you like about AgVenture?
17. In what ways could AgVenture be improved to make it more effective and easier to use?
18. How was the corresponding Teacher's Guide to AgVenture helpful as you prepared to discuss AgVenture topics with your students?
19. In what ways could the Teacher's Guide to AgVenture be improved to make it more effective and easier to use?
20. Will you continue to use AgVenture in your class if it is provided to you?
- _____ a. YES
_____ b. NO

PART II - Perceptions About AgVenture Magazine

The following are statements regarding AgVenture. Please circle the appropriate response to the right of each item. There are no right or wrong answers. Please do not leave any question unanswered.

SD = Strongly Disagree

D = Disagree

A = Agree

SA = Strongly Agree

Example:

I love my job as a teacher.	SD	D	A	SA

- | | | | | |
|--|----|---|---|----|
| 1. <u>AgVenture</u> provides valuable agricultural information for my students. | SD | D | A | SA |
| 2. The content of <u>AgVenture</u> is relevant to current curriculum needs. | SD | D | A | SA |
| 3. Integrating <u>AgVenture</u> into subject areas is easy. | SD | D | A | SA |
| 4. My students find <u>AgVenture</u> to be fun and exciting. | SD | D | A | SA |
| 5. My students find <u>AgVenture</u> to be informative. | SD | D | A | SA |
| 6. <u>AgVenture</u> contains appropriate learning activities for students to apply what they have learned about agriculture. | SD | D | A | SA |
| 7. Terms used in <u>AgVenture</u> are at an appropriate reading level for 4th grade students. | SD | D | A | SA |
| 8. <u>AgVenture</u> is organized in a logical manner. | SD | D | A | SA |
| 9. The Teacher Guide to <u>AgVenture</u> is easy to use. | SD | D | A | SA |
| 10. The Teacher Guide to <u>AgVenture</u> is organized in a logical sequence. | SD | D | A | SA |
| 11. The Teacher Guide provides helpful suggestions for integrating agriculture into the core curriculum. | SD | D | A | SA |

12. The Pretest and Posttest provided in the Teacher Guide are valuable in helping determine students' knowledge about agriculture. SD D A SA
13. The Discussion Prompts in the Teacher Guide help me get my students talking about agriculture. SD D A SA

THANK YOU. THIS COMPLETES THE QUESTIONNAIRE.

**PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED
POSTAGE-PAID ENVELOPE.**

APPENDIX B
COVER LETTERS

September 15, 1994

Dear Elementary School Teacher:

During the past year, you should have received three issues of AgVenture Magazine to use with your students. AgVenture was designed to inform and teach fourth-grade students about the importance of agriculture to Ohio. Publication and distribution of AgVenture is made possible by the Ohio Agricultural Council, Ohio State University Extension, Ohio State University College of Food, Agricultural, and Environmental Sciences, and Ohio's agricultural community.

We have been asked to conduct a study on your perceptions regarding AgVenture. An understanding of your opinions will help in planning future issues for your students. More specifically, we are interested in knowing how you use AgVenture with your students and what outside resources you utilize when teaching your students about agriculture. In order to do this, we need your help. Enclosed you will find a copy of a short questionnaire which asks your opinion regarding AgVenture. **Please take time to complete and return the questionnaire so that your input can be included.**

You were selected to participate in the study as a member of a **random sample** of fourth-grade teachers in Ohio as reported by EMIS. If you are not the correct person to receive this questionnaire, please forward it to the appropriate person. Since only a few select teachers, such as yourself, are being asked to participate, it is **essential** that we receive your input in order to draw valid conclusions for the study. Of course your participation is completely voluntary. However, we would **greatly** appreciate your response. **Please return the completed questionnaire in the enclosed self-addressed, postage-paid envelope by September 30, 1994.**

You will see that your questionnaire is numbered on the back. This number is to provide a way for follow-up letters to be sent, if necessary, to ensure that every selected teacher has an opportunity to be included in the study. Be assured that your name will never be identified in our study in any way. All individual responses will be **strictly confidential**. The final report will contain only grouped data in aggregate form.

Thank you for your time. We hope you will help us in this very important study. If you have any questions regarding the survey, please contact Kirk Swortzel at 614-292-6321 during normal office hours. Thank you for your time and commitment to this research.

Sincerely,

Kirk A. Swortzel
Graduate Administrative Associate
Department of Agricultural Education
The Ohio State University

R. Kirby Barrick
Professor and Chair
Department of Agricultural Education
The Ohio State University

October 5, 1994

Dear Elementary School Teacher:

Approximately three weeks ago, a questionnaire which sought your opinion regarding AgVenture Magazine was mailed to you. To date, we have not received your response. Your views on AgVenture are important to us in planning future issues of AgVenture for your students. We would appreciate it if you would take time to complete and return this questionnaire to us.

Since only a few select teachers, like yourself, were selected to participate, it is important that we have your response to make valid conclusions from the study. For your convenience, we have enclosed another copy of the questionnaire. If you have not completed the questionnaire, **we would appreciate the return of the questionnaire by October 19, 1994.** If you have already mailed your response, thank you for your participation and please accept our apologies.

We hope you will help us in this very important study. If you have any questions regarding the survey, please contact Kirk Swortzel at 614-292-6321 during normal office hours. Thank you for your time and commitment to this research.

Sincerely,

Kirk A. Swortzel
Graduate Administrative Associate
Department of Agricultural Education
The Ohio State University

R. Kirby Barrick
Professor and Chair
Department of Agricultural Education
The Ohio State University

October 26, 1994

Dear Elementary School Teacher:

Approximately five weeks ago, a questionnaire which sought information regarding AgVenture Magazine was mailed to you. To date, we have not received your response. Your views and responses on AgVenture are very important to us in planning future issues of AgVenture for your students. Enclosed you will find another copy of the questionnaire which asks your opinions regarding AgVenture. **Please take time to complete and return the questionnaire so your input can be included in the study.**

Since only a few select teachers, such as yourself, are being asked to participate, it is **essential** that we receive your input in order to draw valid conclusions from the study. **Please return the completed questionnaire in the self-addresses postage-paid envelope by November 15, 1994. Please return the questionnaire to us even if you do not wish to participate. This will keep us from sending you additional follow-up letters.** If you have already mailed your response, thank you for your participation and please accept our apologies.

We hope you will help us in this very important study. If you have any questions regarding the survey, please contact Kirk Swortzel at 614-292-6321 during normal office hours. Thank you for your time and commitment to this research.

Sincerely,

Kirk A. Swortzel
Graduate Administrative Associate
Department of Agricultural Education
The Ohio State University

R. Kirby Barrick
Professor and Chair
Department of Agricultural Education
The Ohio State University